

Bulletin

University of Toronto

Friday April 29, 1976

No. 34 29th Year

"Update" campaign goal is \$25 million



Co-chairman of the "Update" fund raising campaign, St. Clair Balfour (left) and W.O. Twaits

photo by Elizabeth Spivak

Under the name "UPDATE", the University will undertake a five-year campaign to raise funds from the private sector, President John R. Evans announced at a press conference on April 28. Goal of the campaign is \$25 million.

St. Clair Balfour, Chairman of the Board of Southern Press, and W.O. Twaits, former Chairman of the Board of Imperial Oil, are co-chairmen of the "Update" campaign which represents the University's first formal funding appeal to the private sector since the successful National Fund campaign in 1959.

Both Balfour and Twaits are U of T graduates and have been active in University affairs. Balfour through the Southern Press and Twaits through the Southern Press and Twaits in service on the Governing Council.

\$15 million earmarked for renovations

Major capital projects represent almost \$15 million of the \$25 million goal of the "Update" campaign, and should result in a major renewal of many celebrated but antiquated buildings on the St. George campus.

South Campus Redevelopment.

University academic planning gives a priority to a co-ordinated and multi-discipline approach to the theme "Man and Environment" with emphasis on the study

of the earth's physical resources. The Faculty of Forestry, Department of Geology, Institute for Environmental Studies, Department of Geography, Division of Geological Engineering and Applied Earth Science, Centre of Urban and Regional Planning, and the Environmental Planning section of the Department of Civil Engineering will be involved.

It is proposed to house these disciplines in a redeveloped South-west campus. This project will

2) To stimulate quality in all teaching and research by providing up-to-date equipment and facilities.

3) To provide funds for the initiation of new programs in response to changing needs and opportunities.

4) To develop the campus as an aesthetically agreeable environment in the downtown metropolitan area.

The co-chairmen said that the "Update" campaign, which is to begin immediately, is based on 79 priority needs for the University's three campuses: St. George, Erindale and Scarborough. Although "Update" is being launched in conjunction with plans for the celebration of the University's Sesquicentennial in 1977, the campaign will be an on-going activity that is not confined to one

brief period, or even to one calendar year.

As it approaches its 150th birthday, the co-chairmen said, the University finds itself in a position where current financial limitations make it necessary to seek support from other than government sources and student fees.

Continued on Page 6

GOVERNING COUNCIL

1977-78 operating deficit possible

The Governing Council yesterday approved budget guidelines calling for the continuation into 1977-78 of the base budgets recommended for divisions for 1976-77, plus an adjustment for salary increases. Divisions will be

required to absorb increases in costs of non-salary items.

A plan for recovery of merit pay and progress-through-the-ranks is to be implemented. Budget changes will be made in special cases and only upon review by the Budget Committee. Council agreed that the extension of the base budgets will be complemented by more intensive planning activity and that the role of the Budget Committee and the Planning and Resources Subcommittees would be re-examined in light of the revised budgeting approach.

The Governing Council also recognized that approval of the new budget plan involves the possibility of the University incurring an operating deficit in 1977-78.

Meeting at Erindale College, the Council moved briskly through a lengthy agenda which included several additional items of a financial nature. Among those motions gaining Council's approval were:

— The University will continue to pay 68 percent of the total new OHIP premiums at an increased annual cost to the University, including those unionized staff covered by special contract arrangements. Earlier this month, the provincial government increased the annual OHIP premium by \$60 for single persons and by \$120 for married persons.

— Parking rates will increase to \$234 from \$216 a year for reserved space and to \$117 annually from \$108 for an unserved sticker;

daily cash rates will increase to a maximum charge of \$1.65, and to \$1.10 for students; the evening flat rate for parking after 7 p.m. on the front campus will be \$1.25 and \$1 for evening parking on other campus lots.

— Summer residence rates at New College, University College and Devonshire House will increase in a range from 10 to 16 percent. A special rate of \$7 per day or \$26—\$27 weekly (dependent on residence) will be available to primary and secondary school students on official school educational tours.

— Students enrolled in the Bachelor of Commerce program, which requires the successful completion of 23 courses prior to graduation, will be permitted in their fourth year to take three courses at no charge in order to equalize their total fee-per-course payment with that of other students who require only 20 courses to obtain a four-year degree.

— The fee for the Summer Russian Workshop will be increased to \$230 from \$200. Council was informed that even at the increased level the Workshop will operate at a deficit and that its fees are still significantly less than those for comparable programs at other universities.

— Small increases in student fees were granted to the Arts and Science Union, the Erindale College Student Union, the Erindale College Athletic and Recreation

Continued on Page 3

More Canadian content!

Ontario universities must "significantly improve" their performance in hiring Canadian faculty members, Dr. Harry Parrott, Minister of Colleges and Universities, stated in the Legislature on April 26.

In 1975-76, approximately 71.7 percent of faculty members were Canadian citizens, compared to 66.5 percent in 1974-75. U of T is just above the provincial average, with 72.8 percent.

Dr. Parrott said the five percent improvement is due almost entirely to foreign professors taking out Canadian citizenship.

He noted that in 1975-76, about 63.5 percent of newly-appointed faculty were Canadian citizens, "which is about the same as it has been for the previous two years." The U of T figure is 64.9 percent.

Federated Colleges' Renovations.

The new relationship embodied in the Memorandum of Understanding between the University and its Federated Colleges — St. Michael's, Trinity and Victoria — will make it possible for students in the heavily-populated academic areas in Arts and Science to receive instruction in their own College. New and contemporary academic programs are being developed within each College which will reflect and strengthen their great traditions. College students are to be taught on College premises and, whenever possible, by staff located in the College's offices.

To do this, these three colleges must undertake modest renovations to provide for additional

Continued on Page 6

FORUM

Quality of education may be declining

To the Editor:

It has been asserted that the proliferation of A grades at the University of Toronto is lowering its standard of education. The standard of "marking" may be falling but, more importantly, so may be the "quality of education."

The tutorial system as it now operates in several Arts courses is totally unsatisfactory. Students are led to believe that attendance at these small discussion groups will somehow contribute to their comprehension of the course material. But frequently discussion is fruitless and assigned readings only seem to provide the students with reams of information which will not be combined in essays and examinations. Thus, these read-

ings have no practical use. The problem is compounded if there are no marks assigned for tutorial work because, as a result, students have little incentive to attend the tutorial.

These discussions should become a vital element within the present educational system, but that goal cannot be achieved unless some new methods of incorporating their use into the course material be found. Let us address ourselves to the present problems concerning the quality of undergraduate education at the University of Toronto—there must be a better way.

Mike Alexander
Political Science 2
New College

University to be closed July 2

In view of the fact that Dominion Day this year falls on a Thursday, the President has declared that the day following, i.e., Friday, July 2, 1976, will be a holiday as well. Therefore, the University offices will be closed from the end of the working day on Wednesday, June 30, until commencement of work on Monday, July 5, 1976, and wherever possible, consistent with the maintenance of essential services, staff will be given this time off.

For eligible staff the summer hours program will commence on Monday, July 5 and regular hours will resume on Tuesday, September 7, following the Labour Day holiday. Normal office hours will be from 8.45 a.m. until 4.30 p.m. Monday to Friday, or 33 1/3 hours where a flexible hours program has been adopted. Civic Holidays is Monday, August 2.

This notice is not to be construed as establishing service and operating schedules in such divisions as the Main Library, Computer Centre, Physical Plant and the University of Toronto Press where announcements will be made separately.

Robert F. Brown
Director of Personnel

BRIEFLY

Robert Duncan gave a highly successful reading of his poetry before an attentive audience of about 50 persons on Wednesday, April 21, at Erindale College. Duncan, who was one of the key figures in the "San Francisco Renaissance" of the mid-fifties, presented a cross-section of his works. These included "Witnesses", written in the early 20s, several sonnets, the rhythmic "Passages" and pieces from a work in progress. An open seminar followed the reading. Duncan's first appearance at the University.

"The Trip of a Lifetime" is the title of the third annual Meds open house to be held Saturday, May 1. The trip, organized by

students, "will take visitors on the human journey from conception to old age" and will be conducted from 9 a.m. to 9 p.m. in the Medical Sciences Building.

The federal government has issued a free booklet outlining 100 ways to save energy and money in the home or office.

Subtitled "Tips on how you can stretch Canada's energy resources and put money in your pocket", it can be obtained by writing 100 Ways, Box 3500, Station C, Ottawa, K1Y 4G1.

The York University Faculty Association became the fourth certified faculty association in

Ontario on April 12 when it was granted an interim certificate by the Ontario Labour Relations Board.

The association will consider ratification of a draft contract on May 5 and negotiations with the university's bargaining team are expected to commence shortly thereafter.

The Canada Council has awarded a five-year Major Editorial Grant of up to \$430,200 to the U of T Press in support of the *Collected Works of Erasmus*.

The Council has indicated its intention to consider additional funding of the CVE in the amount of \$1,600,000 for the further period of approximately twenty years that will be required to complete the project.

The Remy Award competition, for violin students in the Faculty of Music, will be held on Saturday, May 8 at 8.15 p.m. in the Walter Hall, Edward Johnson Building.

The annual competition, started over 50 years ago in Budapest, was revived last year at U of T. This year again the House of Remy, a distinguished Hungarian musical firm now located in Toronto, will contribute a newly built violin to a student at the Faculty. If the winner is already in possession of a good instrument, he will be given professional engagements including a concert at the Art Gallery of Ontario. The violin will then go to the contestant who wins second prize.



Loch Ness Monster or Robarts Library in springtime? Only the photographer knows for sure.

Alumni Association Meeting

The Annual Meeting of the University of Toronto Alumni Association will be held in Lecture Room 3, New Academic Building, Victoria College at 12 noon on Saturday, May 8, 1976.

Agenda — Secretary's Statement re: Notice of Meeting, Minutes of Annual Meeting, May 3, 1975, Committee Reports, President's Report, Treasurer's Report, Nomination of Auditors, Report of Branches, Amendments to Constitution, Report of Nominating Committee, Election of Officers, Ratification of Committee Chairmen for 1976-77, Remarks by Director of Alumni Affairs, Other Business, Motion of Adjournment.

All U of T alumni are welcome. Those planning to attend are asked to notify Alumni House by April 30 (978-8990).

Douglas Appleton
Secretary

Accidents play no favourites

This somewhat gloomy report has been issued by James H. Murphy, Chief Safety Officer:

"The record for the first three months of 1976 is so poor it is difficult to know what to say. Even the most safety conscious people in the University are sustaining painful accidents. We can look back and blame to a certain extent a very difficult winter. There were, however, a good number of serious accidents that were not related to weather conditions, but rather to poor judgement by individuals.

"We have received excellent feed-back in relation to our recent communique on 'Seat belts'. One member of our community called to say both his son and daughter owed their lives to over-the-shoulder type seat belts. Another informed us of a person who pinned a strip of material diagonally across the shoulder to simulate a seat belt, which indicates in a way the safety officer's difficulty of convincing people of potential danger.

"We are planning in the near future to run lunch-hour film programs at both the John Robarts Library and the Medical Sciences Building. Free coffee and doughnuts will be provided. Bring your own sandwiches. We know you will find these movies both entertaining and informative, so please plan to attend. "We received good response to last month's request for participants in our First Aid Training Program. One course will be held for the staff of Sigmund Samuel Library commencing June, 1976. We are hopeful of another being held in the Medical Sciences Building in the same month. If you would like further information on the St. John Ambulance First Aid Courses, please call Mrs. Joan Scotchmer at 978-8787."



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Governing Council

Continued from Page 1

Association, the Scarborough College Athletic Association and the University College Literary and Athletic Society.

Governing Council also endorsed the Report of the Task Force on Staff Supported on Research Grants. The Report's basic principle is that the approximately 1,000 persons in the category must be treated as regular University employees for such essential purposes as salary levels, grievance procedures, maternity leave, disability insurance and termination procedures.

\$1.5 million already received

St. Clair Balfour, co-chairman of the "Update" campaign briefed Council members on the goals and organization of the University's new on-going fund raising campaign. He announced that pledges totalling \$1.5 million have already been received.

President Evans announced several senior academic and administrative appointments, including that of Prof. James Ham as Dean, School of Graduate Studies. Vice-Provost Robin Ross and Dean Desmond Morton are to be Vice-Principals of Erindale College, and four additional University Professors have been named.

The Council discussed at length the University's official comments regarding long-range planning and financial assistance, which are to be presented to the Ontario Council on University Affairs on May 14-15.

The University will likely endorse "a mildly expansionist policy" for undergraduate

enrolment, Dr. Evans said. An increase in first-year enrolment by about 600—850, particularly in the suburban colleges, would be desirable provided that the provincial government supplies the capital resources necessary to complete the Physical Plant according to the original plans. Each of Scarborough and Erindale thus would have adequate space for about 5,000 students.

The University will also stress to OCUA the need for a cyclical renewal formula of plant renovation, alteration and replacement of capital equipment, and to fund the replacement of furniture and operating equipment.

Debate on Hiring Procedures

Several members sought clarification of the statement of U of T appointments policy announced in last week's *Bulletin*. COU has pledged to the provincial government that new procedures will ensure opportunities for qualified Canadians to compete for appointments.

Dr. Evans noted that the Minister of Colleges and Universities, in a statement made earlier this week, appeared to make a distinction between Canadian citizens and landed immigrants. "The University of Toronto does not intend to make this distinction," the President stated. If the Government wishes to enforce the distinction, this should be done by provincial legislation.

The U of T statement of appointments procedure was referred for clarification to the Academic Affairs committee, which is to meet on May 6.

High prestige jobs hard to get, 1972 grads say

Arts and Science graduates in the early 1970s encountered a less favourable labour market and had more difficulty in obtaining desirable jobs than did graduates of previous years, according to a research study commissioned by the Ministry of Colleges and Universities. Approximately 2,000 B.A. and B.Sc. students from the

1972 graduating class of Ontario universities were interviewed as part of the study.

The 1972 graduates reported having greater difficulty in entering "high prestige" occupations and were less satisfied with their work than graduates of previous years.

Erindale Vice-Principals named

Dr. E.A. Robinson, Principal of Erindale College, has announced the appointment of Prof. Desmond Morton as Vice-Principal (Academic) and of Robin Ross, Vice-Principal (Administration) at Erindale. Both appointments are for two-year terms, effective July, 1976. No increase in staff is involved since Prof. Morton will continue to act as Associate Dean of Humanities and Mr. Ross, who will remain Vice-Provost of the University, has been acting Vice-Principal of Erindale since 1975.

Prof. Morton is a graduate of the College Militaire Royal de St-Jean, the Royal Military College of Canada, and Oxford University. He received his M.A. from Oxford in 1966 and a Ph.D. from the London School of Economics, University of London, in 1968.

Citizens's Candidate and NDP: The Dream of Power.

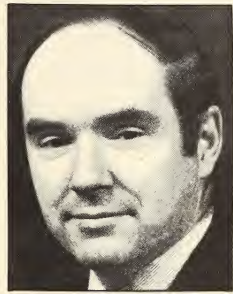
Among Prof. Morton's awards are a number of Canada Council research grants. He is a contributor to Canadian newspapers and periodicals and gives a regular news commentary on radio station CHIC in Brampton.



Robin Ross

Robin Ross is a graduate of St. Andrew's University, Scotland. He was awarded a post-graduate fellowship to Oxford but the War interrupted his studies and he joined the British army. Service in the Indian Civil Service, the Commonwealth Relations Office and the British High Commission in Ottawa preceded his appointment to the University in 1958. Since then, he has served as Registrar of the University and Secretary of the Senate, and for five years as Vice-President. He has held various positions in provincial and national educational committees and organizations, including membership of the board of directors of the Association of Universities and Colleges of Canada. In addition, since 1973 Mr. Ross has been editor of the *Canadian Journal of Higher Education*.

Mr. Ross has had a continuing interest in the development of Erindale College since he was a member of the committee formed in the early 1960s to plan the campus.



Desmond Morton

After ten years in the Canadian army, Prof. Morton retired with the rank of captain in 1964 to become Assistant Provincial Secretary of the New Democratic Party of Ontario, and joined the Department of History at the University of Ottawa in 1968. In 1969, he was appointed to the faculty of Erindale College, and in 1975 he was appointed Associate Dean of Humanities.

His special fields of interest are Canadian military, political and labour history. His books include, "Ministers and Generals: Politics and the Canadian Militia: 1867—1904; Mayor Howland: The

Dainty, Hare, Rapson, Siminovitch are honoured

Four distinguished scientists — a botanist, climatologist, chemist and a geneticist — have been named University Professors, President John Evans announced at yesterday's meeting of the Governing Council.

They are: Jack Dainty, Chairman, Department of Botany; F. Kenneth Hare, Director, Institute for Environmental Studies; Howard Rapson, Professor of Chemical Engineering and Dr. Louis Siminovitch, Chairman, Department of Genetics and Geneticist-in-Chief, Hospital for Sick Children.

Jack Dainty, 57, came to the University as Chairman of Botany in 1971. Previously, he had been professor of botany at the University of California at Los Angeles.

Prof. Dainty was graduated from the University of Cambridge in 1940 with First Class Honours in Mathematics and Physics. He obtained an M.A. from Cambridge in 1953, and in 1958 gained a D.Sc. from the University of Edinburgh. His academic awards include the Stokes' Medal at Cambridge. A Fellow of the Royal Society of Edinburgh, he has also been a Royal Society Commonwealth Fellow to Australia and Visiting Nuffield Professor to Canada.

From 1940—45 he was a research physicist at Cambridge and from 1946—49 served in Canada as a researcher with Atomic Energy of Canada at Chalk River. He then returned to the United Kingdom and was for 15 years at the

University of Edinburgh as lecturer, senior lecturer, reader and then Head of the Department of Biophysics. He moved to the University of East Anglia, Norwich, in 1963 and to UCLA in 1969.

F. Kenneth Hare, 57, has held numerous academic and administrative positions in Canada and in his native England, including the presidency of the University of British Columbia in 1968—69.

Dr. Hare, a professor of both geography and physics, earned degrees on two continents: a B.Sc. in geography at the University of London (1939) and later a Ph.D. in climatology at the Institut de géographie, Université de Montréal (1950). He has received honorary degrees from Queen's, Western Ontario, McGill, and the University of Adelaide, where in the summer of 1974 he was Centenary Visiting Professor.

Following a meteorological service in the Royal Air Force as a weather officer, he joined the staff at McGill University, where he served as chairman of the Department of Geography (1950—62) and then as dean of Arts and Science (1962—64). He returned to the University of London for four years before serving as president of UBC.

Dr. Hare is a Fellow of the Royal Society of Canada as well as of the American Meteorological Society; he has been president of the Canadian Association of Geographers and of the Royal Meteorological Society, and honorary presi-

dent of the Association of American Geographers. In 1973 he was awarded the Patterson Medal by the Canadian Meteorological Service and in 1974 the Massey Medal by the Royal Canadian Geographical Society.

He joined U of T in 1969 and became Director of the Institute for Environmental Studies in 1974. He is present chairman, Advisory Committee on Canadian Demonstration Projects, United Nations Conference on Human Settlements, to be held later this year.

Howard Rapson, 63, was born in Toronto and obtained both his undergraduate and graduate education from the Department of Chemical Engineering. He has been a professor there since 1953.

He is recognized as one of the world's leading authorities on chlorine dioxide bleaching in the pulp and paper industry, and his numerous inventions have earned more than 33 patents in 43 countries. Dr. Rapson is a Fellow of the Royal Society of Canada and in 1967 was awarded a Centennial Medal.

Among the many awards for his contributions to industrial technology are the R.S. Jane Memorial Award of the Chemical Institute of Canada (1965), the prestigious McCharles Prize (1966) and the 1967 Pulp Manufacture Division award of the Technical Association of the Pulp and Paper Industry.

At the University, Prof. Rapson

has been active in the faculty association since 1953, and his many committee memberships have included the President's Council, the Central Budget Committee (1967—70), chairman of the faculty association's salary committee (1964—66), and the Board of Governors of the Ontario Institute for Studies in Education (1971—73).

In October 1975, he announced successful completion of a breakthrough in water pollution control for the pulp and paper industry: a system which will eliminate the pollution of water by bleached kraft pulp mills. 1976 has been a year of awards for Dr. Rapson; in addition to the University Professorship, he has received the TAPPI Gold Medal and is soon to receive an honorary degree from the University of Waterloo.

Louis Siminovitch, who celebrates his 56th birthday tomorrow, is a prolific researcher and author in addition to his teaching and administrative duties in the Department of Genetics.

Dr. Siminovitch earned a Ph.D. from McGill University in his native Montreal in 1944 and in 1965 was elected a Fellow of the Royal Society of Canada. From 1944—47 he worked with the National Research Council and then moved to the Institut Pasteur in Paris. He returned to Canada in 1953 as a fellow of the National Cancer Institute in the Connaught Medical Research Laboratories.

He was appointed Associate Professor in the Department of Microbiology in 1956, and in 1958 became in addition an Associate Professor of Medical Biophysics; in 1960 he was made Professor in both departments. In 1967, Dr. Siminovitch was named director of the Cell Biology Group, a new grouping of research units within the Faculty of Medicine. He is also an Associate Professor in the Department of Paediatrics and became Chairman of the Department of Medical Genetics in 1974.

He has served as member of the University's research board and on the Research Advisory Group, National Cancer Institute of Canada.

Since 1960, Dr. Siminovitch has edited the journal *Virology*, and he is also a member of the editorial board of *Cell*, *Somatic Cell Genetics*, and *Journal of Cytogenetics and Cell Genetics*.

Among his many responsibilities outside the University, he is chairman of the Province of Ontario Task Force on Genetic Services and a member of the Killam Selection Committee of the Canada Council.

The four appointments bring the total of University Professors to 12. Previously named are Claude Roy (English), Donald Creighton (History), Northrop Frye (English), D.V. LePan (English), C.B. Macpherson (Political Economy), Marshall McLuhan (English), John Polanyi (Chemistry) and C.P. Stacey (History).

Up from Coboconk: the evolution of James Ham

by Sheila Robinson Falls

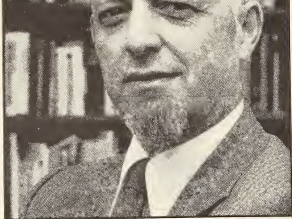
The academic career of James Ham, recently appointed Dean of the School of Graduate Studies, reads like the archetypal Canadian tale of the country boy made good — from a one-room school house in Coboconk, Ontario to the highest marks ever awarded to an engineering graduate at U of T, followed by a doctorate at MIT and several prestigious appointments.

"Even two months ago I would have said it unlikely that I should undertake a job such as this one," says Prof. Ham of his latest appointment. However, one might be forgiven for believing it was just a matter of time before he would tackle another academic administrative post. He has already held several during his 23-year career at U of T: Head of the Department of Electrical Engineering, 1964-66, Dean of the Faculty of Applied Science and Engineering, 1966-73, and Chairman of the Research Board since 1974. His appointment as Dean of SGS, which was announced at Thursday's meeting of the Governing Council, is for five years. He succeeds the present dean, Edward Safarian.

Although he began his academic work in the field of automatic control systems in industry, Prof. Ham has latterly become interested in technology as a whole, and how it affects and shapes people. While he serves as Dean he hopes to contribute to a new program on the social impact of technology being initiated by the Faculty of Applied Science and Engineering, and to work on technical problems of measuring conditions in the environment of workplaces in industry.

Prof. Ham recognizes the continued existence of several major problems related to graduate study. One problem involves the attitude towards graduate studies within the University itself. As an academic with a strong interest in both teaching and research, he brings a well-defined point of view to the SGS. "I'm deeply committed to the belief that teaching is validated by research," he says. "The argument over the quality of teaching within the university has tended to reflect a lesser significance on research."

Another continuing problem for the graduate school is the whole question of being part of the Ontario system. "In a way we are overpopulated with universities in Ontario, and the problem of (limited) resources impels us to be increasingly aware of our neighbours." As he sees it, the development of graduate studies, in concert with other Ontario



Prof. Ham becomes SGS Dean in July

graduate schools, will continue to raise difficult questions of just how free each can be to "do one's own thing."

A current issue which interests the new Dean is the context within which the graduate student pursues his work. "The quality of a graduate school is based not only on academic excellence, but on the collegial notion of each discipline. The notion that universities are in existence to shape people into preconceived slots in the structure of society is anathema to me, because the usefulness of the university derives from its ability to educate people who can wrestle with the conditions of our time, and who can perceive and assist society to adapt to these issues."

Whatever his commitment to reaffirming the broadest purposes of graduate studies, Prof. Ham is neither unaware of nor unsympathetic towards the recent struggles of the GAA to achieve status as a bargaining unit. "When it all began I thought 'Oh my God,' but as a former Faculty dean I realized there were inequities within our own community," he says.

And he readily admits, "If I were a graduate student I'd be right in there." But while he grants that the GAA union has attempted to wrestle with some existing inequities, syndicalism within the University separates us from the essence of the institution. "He sees the unionization of the GAA as just one aspect of this growing trend within the university, and one that is being fired by financial problems."

Between now and the time Prof. Ham begins his tenure as Dean he will be completing his chairmanship of an Ontario Royal Commission on the health and safety of working conditions in Ontario mines on which he has been working over the past year-and-a-half. The Report is concerned in particular with what the members of the commission have learned about the conditions in which uranium miners work.

According to Prof. Ham the report will try to "impress upon government that the issue of safety and the environment in the mines is indicative of a wider social problem." He adds: "where technology impinges on people we have to be more open and frank. There just hasn't been enough functional concern for the worker."

Prof. Ham has been particularly concerned by the problem of lung cancer occurrence among miners who dig the uranium for use in nuclear reactors. We are very careful about the people who work on the reactors and not so careful about those who work in the mines." He feels that in the past the public and government have tended to react to the question of safety in the working environment only in crisis situations. As a teacher of engineering students, he would like to see a more explicit concern voiced about the possibilities of the adverse influence of a technology on the people who will use it. "I don't believe there is enough concern in the minds of industrial designers about the people who are going to be working in the environment we are creating."

Prof. Ham has long had an interest in the effects of technology in shaping people's lives. His work on the commission has focused on the individual confrontation between man and his technology. But his interest in the question goes far beyond that. Two years ago he taught a seminar called "The Evolution of Technology," which explored the historical roots of the changes of scale in the uses of energy. He was also one of the group which sought the initiation of the Institute for the Philosophy of the History of Science and Technology, and he remains an affiliate of that Institute.

Those writhing, voracious intestinal worms

by Robbie Saller

Over 98 percent of all Canadians have a parasitic infection at some time during their lives. And, though approximately 70 percent of the population are presently infected or have dormant, encapsulated larvae or adult parasites, we are much better off than the many developing countries where a similarly high percentage are affected permanently.

Many parasitic infections in man are "in error." Normally, mosquito's intentions are to bear encysted forms from one horse to another, but if man happens to be in the way, he becomes the intermediate, innocent host.

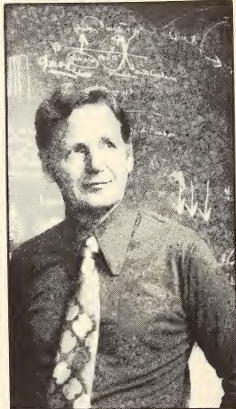
Dr. David Metrick, Professor and Chairman of the Department of Zoology, is studying the effects of parasitic infections on feeding and on normal digestive processes, and has shown that up to 15 percent of an animal's total dietary intake may go to support the growth of its parasitic burden. "In Africa and in India, where children are often on the verge of starvation, this nutritional loss can mean the difference between life and death," says Prof. Metrick. "It's been calculated the roundworm, *Ascaris lumbricoides*, could be eliminated from India, the country's present food production would not only be sufficient to provide for all its present population, but there would be some left over for export."

Prof. Metrick, who worked in Africa

and the West Indies for 10 years, found in his early studies that intestinal worms migrate through the intestine every 24 hours — on a cycle related to the feeding cycle of the host. The migration explains why, in countries like India where religious fasting is practised, there is a marked increase in the incidence of intestinal blockage associated with fasting — "all the worms congregate in the duodenum, where the stomach joins the small bowel, waiting and writhing for food."

More recently, Prof. Metrick and his research group have shown how parasites change the intestinal chemistry, thereby markedly affecting digestion and absorption by the gut. The key to these changes is the very low acidity promoted by the intestinal parasites in the gut. This low acidity, while inhibiting digestion as well as nutrient and water absorption by the intestine, enhances absorption by the parasite. "It's an interesting example," comments Prof. Metrick, "of how an animal, in this case a parasitic worm, can become highly adapted to its environment, thus increasing its chances of survival."

Prof. Metrick and his collaborators have recently solved the mystery of the parasites' abilities to adapt to an environment that would seem to put them at a disadvantage, since the gut is essentially without oxygen. The explanation lies in



Prof. David Metrick

the fact that "after a meal, the carbon dioxide tension in the small bowel increases enormously. The accumulation

influences the parasite's metabolism to affect to a lack of oxygen."

This work on understanding the effect of intestinal parasites on gastrointestinal function has now reached the stage of clinical application and resulted in an exchange of staff between the University of Toronto and the Hospital del Nino IMAN in Mexico. The incidence of human parasitic infections, particularly in children, is considerably higher in Mexico than in Canada. While it is usually simple to eliminate intestinal parasites once they have been diagnosed, the difficulty lies in the widespread existence of parasitic infections whose symptoms are not yet manifest — particularly in rural areas.

The simple methods now known to control the hyper-acidity associated with intestinal parasitic infections offer the best hope of containing the infections within the geographic area where they most frequently occur.

Professor Metrick's research is currently supported by the National Research Council; additional support has come from the Medical Research Council and the Atkinson and Wellcome Foundations. Prof. Metrick is currently president of the Biological Council of Canada; chairman of the Animal Biology Committee of NRC; chairman of the Canadian Council on Animal Care; a member of the Board of the Metro Zoological Society; and a member of the Council of the Canadian Society of Zoologists.

37 administrative staff have consulted Ombudsman since fall appointment

In his first report to the University's Governing Council, this city's Ombudsman Eric McKee indicated that 127 people have approached him for help since the position was established last October 1. The majority of these have been undergraduates (45) and administrative staff members (37). As well, there have been 24 queries from graduate students, eight from faculty members, and 13 from

miscellaneous campus groups, organizations and alumni.

McKee stated that his most frustrating problem to date has been the lack of a suitable office location. Last fall he expressed the desire to find a centrally located, relatively neutral, secure and accessible office, but the only available space was in the International Student Centre, and later in Simcoe Hall. The permanent loca-

tion will be at 16 Hart House Circle, which is now undergoing renovation, and the Ombudsman will move there early in the summer. Students from Erindale and Scarborough can make appointments to see him on their own campuses. McKee also pointed out that while the Ombudsman is slowly becoming known around the University, the student constituency is difficult to reach. Those

students who have approached him nearly all wanted assistance on academic matters — degree requirements, grades and grading procedures, availability of courses, examinations and other evaluation procedures, transcripts, quality of instruction and admission to graduate programs. The most widely publicized case dealt with Henry Hong, the fourth-year medical student whose appeal against

expulsion was recently turned down. The Ombudsman, after examining the case, concurred.

Requests from administrative staff have mostly concerned the area of employee-employee relations — performance appraisals, position classifications, salary matters, terminations, vacation pay regulations, maternity leave policy, promotion practices and labour relations.

STAFF NOTES

Erindale

Dr. A. J. POE gave seminars on "The strength of Metal-Metal Bonds in Metal Carbonyls" at the E.T.H., Zurich, and the University of Wurzburg, West Germany, last December. He also visited Prof. H. Vahrenkamp at the University of Freiburg for a week in connection with their collaborative research program on this topic sponsored by NATO.

Prof. Scott Greer of the Department of Sociology, University of Wisconsin, visited Erindale during February. The main purpose of his visit was to examine the question, "Is community possible in modern urban society?" in the meeting series "Mississauga 1999." Prof. Greer also gave seminars at Erindale and on the St. George campus.

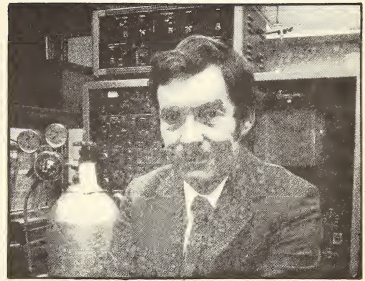
Prof. F. JEROME MELBYE gave an invited talk on "Problems of Paleodemographic Analysis" to the Department of Near Eastern Studies of the ROM in January.

Dean DESMOND MORTON addressed the North-Central convention of the Alberta Teachers' Association in Edmonton on "Louis Riel: The Myth and the Reality." He was at Carleton University to lecture on "Socialism vs. the Welfare State" in a series entitled, "The Stormy Seventies" and while there spoke on the French network of the CBC and gave an illustrated lecture on Canadian trade union history at the Public Service Alliance. Following his trip to Ottawa, he represented the College at the Joanna Goodman Lectures at the University of

Western Ontario. The lectures were given in memory of the daughter of Edwin A. Goodman, Q.C., a former visiting lecturer at Erindale.

Prof. WILLIAM HURLEY and graduate student Gary Crawford, now studying at the University of North Carolina, reported on the analysis of findings of the 1974 Hamanassu Project at the 28th annual meeting of the Association of Asian Studies. The project involved U of T, the ROM and the University of North Carolina. Prof. Hurley said of the project, "These findings change our whole perspective on the lifestyle of the early Japanese people."

Prof. D. W. LAMBDEN acted as chairman for a panel of two lawyers addressing the Association of Ontario Land Surveyors on the laws of contract and negligence at the association's 84th annual meeting. At the awards luncheon of this meeting, honorary membership was bestowed on Dr. J. TUZO WILSON and Prof. GORDON GRACIE. This is the highest honour the association grants to those who are not Ontario Land Surveyors and is awarded for eminence, knowledge and contribution to the profession.



Dr. Roy Shephard of the Department of Preventive Medicine and Biostatistics was invited to Japan as a visiting professor in December under the joint auspices of Tsukuba University, the Japanese Ministry of Life Planning and the Nippon Turtles Association. Lectures he gave included "Fitness of the Circumpolar peoples," "A longitudinal design for the study of activity and health in children" and "History of Physical Education in Canada" at Tsukuba University; "Oxygen Conductance" at Juntendo University; "Cost benefit analysis of increased physical activity" to the Ministry of Life Planning; "Nutrition and activity of the Canadian Eskimo" at the National Institute of Nutrition; "Running in the prevention and treatment of cardiac disease" to the Turtles Association in Nagoya and Tokyo; "Endurance fitness — the Canadian scene" at the 44th annual meeting of the Japanese Society of Sports Medicine and "Recent Developments in Sports Medicine" to the Japanese Amateur Sports Association. He also visited laboratory facilities in Tokyo, Nagoya, Kyoto, Juntendo and Tsukuba.

During March, Prof. Shephard attended the 3rd Canadian Symposium on Child Growth and Development held in London and presented, with Dr. H. Lavallee, two papers: "Effects of physical activity and season upon the working capacity of school children" and "Comparison stature-ponderale des enfants Canadiens". Following the symposium in London, he served as guest professor to a colloquium organized by the University of Waterloo and spoke on "Exercise in the prevention of ischaemic heart disease." And he presented, with Dr. H. Lavallee and others, a paper entitled "The influence of activity environment and season on the growth of working capacity" at the annual meeting of the Clinical Research Society held in Toronto.

During April, Dr. Shephard was visiting lecturer at the University of Manitoba Symposium on "The Scientific basis of medical practice", presenting papers on "What is conditioning?" and "The safety of exercise". He also participated, with Drs. F. Silverman and L. Folmsee, in a poster session entitled "Modification of ozone responses by ventilation" at the meeting of the American Physiological Society held in Anaheim.

Institute for Environmental Studies

Prof. P. H. JONES, director of education at the Institute, convened a "think tank" at Massey College in February of scientists engaged in environmental studies. Members of the Institute attending included Dr. F. KENNETH HARE, Dr. HENRY REGIER, Dr. IAN BURTON, Dr. DONALD CHANT and TOM DAVEY.

Discussions covered a wide area from critical observations of particular scientific problems to an examination of the basis of environmental sciences. The relevance of universities and even science itself was questioned during the discussions. The federal government, in particular, was criticized for what was termed its low concern over science in general and environmental science in particular. A report of the proceedings is being compiled for publication.

The environmental and health effects of radioactive wastes were the subject of a seminar in March. Co-chairmen were Dr. JOHN R. BROWN, Department of Preventive Medicine and Biostatistics, and an associate of the Institute and Prof. DOUGLAS G. ANDREWS, Department of Chemical Engineering.

The following papers were presented: "Some Criteria for Action" and "Biological Perspectives", Prof. Andrews; "Genetics", Dr. DIANE W. COX, Research Institute, Hospital for Sick

Children and assistant professor in the Departments of Paediatrics and Medical Genetics; "Radon Problems in Port Hope", Dr. J. H. Aitken, chief of the division of health physics, Ontario Ministry of Health, "Regulatory Aspects of Waste Management", J.P. Didyk, Atomic Energy Control Board; "Some Legal Implications of Radioactive Materials Disposal", Ms. H. Mitchell, Environmental Law Association; and "Radioactive Disposal from an Energy, Mines and Resources Viewpoint", Fred C. Boyd, Department of Energy, Mines and Resources, Ottawa.

Prof. KENNETH HARE has been elected a Fellow of the American Association for the Advancement of Science. A Fellow is defined as "one who has produced a body of work on behalf of the advancement of science that is scientifically distinguished or socially highly significant, or both".

Dr. Hare's citation read: "F. Kenneth Hare, for his research leadership in the geophysical sciences and his research concerning the philosophy of science and the climate of arctic areas."

Psychiatry

Prof. F.I.M. CRAIK has been appointed associate editor of the quarterly *Journal of Experimental Psychology*.

Prof Kurt Levy AATSP chairman

Prof. Kurt Levy has been appointed general chairman of the 1979 annual meeting of the American Association of teachers of Spanish and Portuguese in Toronto. This will be the first AATSP annual meeting to be held in Canada.



Institute for Aerospace Studies

Prof. I.L. GLASS gave a lecture on "Aerospace in the Next Century" to the Zonta Club of Toronto in January to commemorate Amelia Earhart Night. The club has in the past awarded two Amelia Earhart Fellowships to students at the Institute for Aerospace Studies. He delivered a lecture entitled "Energy and the Future" in the Royal Canadian Institute winter lecture series and repeated this address to second year Civil Engineering and other students taking the course in environmental systems by invitation of the departmental chairman, Prof. G.W. Heinke. Prof. Glass attended the American Institute of Aeronautics and Astronautics 14th aerospace science meeting and 12th annual meeting: Aerospace '76, which included a special display, "Age of Space Transportation", in Washington, D.C. While in Washington, he visited the National Bureau of Standards to discuss current research and development problems in aerodynamics and magnetohydrodynamics. He also attended the AIAA Fellows dinner. He had been unable to attend last year while on sabbatical leave when he was elected a Fellow.

Institute for History & Philosophy of Science & Technology

Prof. BRUCE SINCLAIR attended the winter meeting of the American Society of Mechanical Engineers in Houston in December and was the principal speaker at the members' and students' luncheon, where he delivered the Roy V. Wright Lecture. Prof. Sinclair spoke on technical developments in nineteenth-century America. In February, he attended the annual meeting of the American Association for the Advancement of Science in Boston where he presented a paper entitled "Americans Abroad: The Class of '37 Tours Europe", which described the effect of foreign travel in the professionalization of U.S. science in the early nineteenth century.

Medicine

Dr. S.S. DESSER presented a paper entitled "The role of *Dient amoeba fragilis* in Idiopathic Intestinal Disorders: A Personal Case Report" at the Joint Meeting of Infectious Diseases in Toronto, Nov. 28.

Management Studies

Prof. MYRON J. GORDON presented his presidential address, "A Portfolio Theory of the Social Discount Rate and the Public Debt" to the thirty-fourth annual meeting of the American Finance Association held in Dallas in December.

F J Keenan reviews tropical hardwoods use

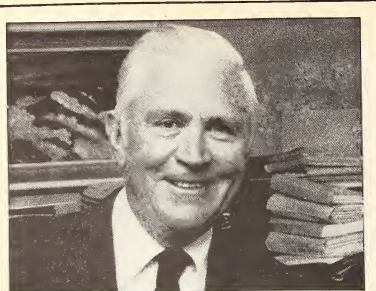
Prof. F.J. Keenan of the Faculty of Forestry and Landscape Architecture spent three weeks from Nov. 15 to Dec. 5 in the Andean Pact countries of South America. He was conducting a review of the working plans and progress to date of a project to improve the utilization of tropical hardwoods, particularly in construction. The project is supported by the International Development Research Centre in Ottawa. Prof. Keenan visited forestry schools and forest products laboratories in Peru, Ecuador, Colombia and Venezuela. The philosophy behind this, and other IDRC projects, is explained by Prof. Keenan with the analogy that "you can give a man a fish and he will have a meal, but if you teach him how to fish he will have several meals."

The forest products project in the Andean Pact countries is directed towards the best possible use of what is now an under-utilized resource. In close proximity to serious housing shortages is the Amazon forest. This is a heterogeneous, almost virgin, tropical forest with as many as 200 different species per acre. The trees are hardwoods of medium to high density and often have buttress roots. Their size, particularly to Eastern Canadian eyes, is gigantic. The trunks are clear with few knots and the wood is high quality.

There are problems associated with the use of hardwoods for building. Cutting the trees by hand used to be a long and exhausting process but with the chain saw this no longer presents a problem. The high density woods sink in water. To get them down river to the mills, rafts of lower density woods are built and the logs are floated on them with the highest density woods at the top of the pile. Nails frequently just split hardwoods so bolts are used, and other jointing methods are being investigated. South America is an earthquake area and this eliminates the North American log cabin technique because the joints have no absorptive qualities.

Prof. Keenan was impressed with the talent, dedication and determination of the researchers in South America. They want to cover in three years what has taken 30 years here.

Being able to tap the Canadian experience will doubtless help the South Americans achieve their goals. And they may get an unexpected benefit. Recent findings have cast some doubt on traditional methods of calculating stress factors, the safe load-level of wood used in structures. These are now being reviewed and this fresh look at old assumptions could yield information useful to the South Americans.



Lawrence Lynch graduated from College in 1932

St. Michael's has new Principal

Prof. Lawrence Lynch has been appointed Principal of St. Michael's College, the College's governing board, the *Collegium*, announced earlier this month.

Until now, the offices of president and principal have been combined, and have been held since 1958 by Rev. John M. Kelly. Father Kelly will continue as President and will have over all charge of the College, especially graduate institutes and faculties. Prof. Lynch, the first layman to be named Principal, will be responsible for the undergraduate component of the College, including instruction and student affairs.

Prof. Lynch's association with St. Michael's began when he enrolled as an undergraduate in 1932. He was Chairman of the College's Department of Philosophy from 1960-1975.

Prof. Lynch, 60, has held numerous elective and appointed responsibilities throughout the University, and is perhaps best known as a co-chairman of the Commission on University Government (1968-69), whose report led to the establishment of the Governing Council. He was a member of the Senate for 12 years, served on the President's Council from 1966-69 and was for 18 years a member of the Hart House House Committee, including six years as its chairman. In 1969-70, he was a member of the President's Committee on the Future of Hart House.

Among his other responsibilities have been membership on the Council of the School of Graduate Studies and on the Council of the Faculty of Social Work, as well as lengthy experience with the Faculty Association as a member of the executive committee (1957-64), chairman of the policy committee (1959-62) and chairman of the university government committee (1960-62).

Prof. Lynch's interests outside the University have included chairman, administrative committee, World University Service of Canada (1949-52), chairman, Couchiching Conference (1957) and president, American Catholic Philosophical Association (1958). Prof. Lynch gained his Ph.D. from the U of T in 1940 and also holds a Licence in Medieval Studies from the Pontifical Institute of Mediaeval Studies. He taught at St. Michael's in 1940-41 and then served with U.S. Naval Intelligence in the Far East prior to rejoining the staff of the College in 1946 where, along with Prof. Marshall McLuhan, he was one of the few lay undergraduate instructors.

Ingenuity just one of tactics in energy conservation campaign

by Paul Carson

Hot water that isn't quite as hot or full-flowing, re-programming of elevators and more efficient use of thermostats are all tactics currently being utilized in the University's on-going campaign to promote energy conservation.

Although users probably won't realize it, the temperature of domestic hot water (i.e. for use in washrooms) circulated through some large buildings on the St. George campus will be reduced to 120 from 160 degrees Fahrenheit. The resulting savings are part of a major assault on the spiraling increase in the University's heating bills. To date, the results are encouraging: despite the severe winter weather and the significant increase in rates, the consumption of BTUs for the current heating season indicates a two percent reduction from 1974-75 instead of the 12 percent increase originally predicted.

Use of basic foot power instead of total reliance on elevators is also a source of important energy savings. In many large buildings, elevators will be programmed to skip certain floors, and in some cases not all the elevators will travel automatically return to a specific floor when not in use.

Thermostats can be both used and abused. For example, the arrival of warmer weather means that the suggested indoor temperature level of 68 degrees Fahrenheit could be lowered to about 64, thus saving some heating costs. Thermostats should be adjusted to no higher than 60 for evenings and weekends, and 55 if the area is to be vacated for a longer period. Un-needed light bulbs should be disconnected.

Thermostat regulators may have to be installed in many buildings to combat the actions of some University personnel who, it seems, mistakenly believe that a chilly room can be warmed up quickly by setting the thermostat to about 80 degrees. One particularly unfortunate incident occurred at the Drill Hall when, the thermostat having been set at far too high a level, the entire supply of fuel oil was consumed in heating the empty hall over the course of a winter weekend; when students arrived for an examination the following Monday, they were faced with an environment even more austere than usual.

A special type of shower head which restricts the flow of water will be tested in the near future. It lives up to expectations; it will be installed on all shower facilities, resulting in savings which should exceed \$300,000 per year.

The University hopes to achieve greater co-ordination between maintenance and design so that building renovations will incorporate energy saving features. One current problem is the presence in many buildings of excessive lighting and inadequate insulation.

Other measures reviewed by members of the Task Force on Energy Conservation include:

- reduced use of fume hoods in selected laboratories
- cheaper paper for departmental letterhead and adoption of circulating forms so that a reply can be written on the same paper as the original inquiry
- increased control of distilled and deionized water, plus further savings from re-plumbing where necessary;
- installation of storm windows

to cut heavy heating costs in some buildings;

— resisting the impulse to adopt interesting but expensive projects whose initial capital costs are likely to outweigh the long term savings;

— reduction of "wild heat" in steam pipes by adding extra insulation.

One prime energy-gobbler whose proliferation is to be very sharply curtailed is the window unit air-conditioner, thought by many to be a symbol of status as well as of comfort. Few further installations will be permitted and those that are will be scrutinized with the attention of a Scrooge.

Suggestions for additional methods of conserving energy can be forwarded to any member of the task force: J. Burrell (Medical Sciences Building), 6029; Ian Burton (Sidney Smith Building), 3374 or 6409; G.M. Clark (Ramsay Wright), 3489 or 3519; D.G. Ivey (New, Physics), 2936; W.K. Lye (Physical Plant Director), 6328 or 2312; M. I. McNeill (Roberts Library), 5300; K.B. Nielsen (Lash Miller), 3565; and A.G. Rankin (Vice-President, Business Affairs) 8736 or 8515.

Gordon Lectures May 11, 12 and 13

Prof. Jean-Marie Lehn, Professor of Chemistry at the University of Strasbourg, will deliver the 1976 A.R. Gordon Distinguished Lecture Series on May 11, 12 and 13. All three lectures will be given at 4.10 p.m. in 162 Lash Miller Chemical Laboratories. (See Events, page 8)

\$15 million earmarked for capital needs

Continued from Page 1

classroom and academic office space.

The "Update" goal for all three colleges is \$1,725,000.

Restoration of University College

Originally constructed in 1856 and re-built after the tragic fire of 1890, University College's main building has been undergoing costly renovations since 1972. The Ontario government has contributed \$5 million and the College an additional \$750,000. Completion of the renovations will require further donations totalling \$750,000.

New athletic facility

The School of Physical and Health Education, which has moved three times since its founding 35 years ago, still occupies rented quarters, lacking both adequate laboratory space and convenient access to large multi-purpose indoor facilities. Moreover, space on the St. George campus for general athletic and recreational activities is severely restricted. Hart House, the main facility for male students, can offer

little more than the original services available when it opened in 1919.

The capital cost of the new athletic building, to be located adjacent to the Benson Building, has come from government and private sources. \$1 million still remains to be raised.

Campus as Campus Centre

An imaginative concept for combining increased leisure space with existing buildings on the westerly side of St. George St., the Campus as Campus Centre was designed in 1971 by students of the teaching staff of the Faculty of Architecture and has been endorsed by the Toronto city council and several local community organizations.

The goal of \$750,000 will permit the closing and landscaping of sections of Wilketts and Huron streets, creation of new pathways, and the building of a median strip along St. George St. from the Ramsay Wright building to the south end of the Lash Miller building.

Many other capital needs

"Update" hopes to generate about \$2.5 million to remedy almost two dozen urgent needs on all three campuses, as selected by the University's Needs Committee. Such needs include additional greenhouse space, a climatological station at Scarborough, a seismological observatory at Etobicoke, renovations to the most 60-year-old furnishings and equipment of Hart House, and repair of the Convocation Hall organ built in 1914.

Educational Development Projects

Updating of curriculum and research at the University goes on continuously to meet the needs of students and society. The Banting and Best Department of Medical Research is hampered by a shortage of funds for basic medical research — there is need for a public policy analysis project, such as a study of the impact of social welfare and family law. The goal for these and almost three dozen projects of equal importance is \$5.75 million.

Improvement of Library Resources

The University's library collection, one of the largest in the continent, is a unique Canadian resource for scholarship and research, serving many other universities. It requires strengthening in many areas: current Canadian books, reference materials, bibliographic information systems, audiovisual instructional programs, improving the Canadian labour history collection. The "Update" goal is \$750,000.

Student Aid: Fellowships, Scholarships and Bursaries

There are specific areas of need defined in the "Update" program for financial assistance to students. They cover graduate interdisciplinary studies, fellowships in industrial relations, general bursaries and support for pre-university students — all included in the goal of \$1 million.

All these needs are considered to be top priority by the University and the campaign management committee.

\$25 million campaign

Continued from Page 1

Both co-chairmen are graduates of the U of T — Mr. Ballfour from Trinity College in 1931 and Mr. Jackson, President of Manufacturers Life, are serving as co-chairmen of the campaign division soliciting funds from major corporate donors. Peter Harris, of A.E. Ames and Company, Fred Eaton, of Eaton's of Canada, and H. Wayne Tanenbaum are other division chairmen.

Also serving on the management committee for the campaign are J. Page R. Wadsworth, President, Canadian Imperial Bank of Commerce; Douglas Peacher, former President, Simpson-Sears and Harold Murphy, Q.C. W.J.M. Turner, Chairman of the Board, Consolidated Bathurst Ltd., will serve as head of the "Update" campaign in Montreal.

The faculty, administrative staff and students will be invited to contribute in the fall of 1976. At the same time, alumni will be asked to make donations to "Update" through the Varsity Fund, under the chairmanship of Bob Moore, Vice-President of Stevenson and Kellogg Ltd., management consultants.

The appeal has as its target the objective of meeting the defined needs in as short a time as possible rather than obtaining a specific sum each year. It is hoped, however, that sufficient pledges for a three-year period will be obtained to permit the University to proceed at an early date with high priority and urgently-needed projects.

1000 students offered \$1,250 Graduate Scholarships

Ontario Graduate Scholarships have been offered to 1,000 outstanding students intending to pursue full-time graduate studies at Ontario universities in 1976 — 77.

The scholarships reward academic excellence and are worth \$1,250 per term for a

maximum of \$3,750 over three consecutive terms. This year's scholarships have increased in dollar value by more than 10 percent over last year's, which had a maximum value of \$800 plus tuition fees.

Scholarship winners were selected on the basis of academic

merit, regardless of discipline. The board was chaired by Prof. D.C. Jordan of the University of Guelph. Other members of the board were Prof. C.B. Craig, U of T; Prof. M.E. Arthur, Lakehead; Prof. A.J. Baer, Prof. C.B. Hiest, Western; Prof. J.T. Ryan, Carleton, and Prof. D.M. Winch, McMaster.

JOB OPENINGS

Below is a partial list of job openings at the University. Interested applicants should read the Promotional Opportunity postings on their staff bulletin boards, or telephone the personnel office for further information. The number in brackets following the name of the department in the list indicates the personnel officer responsible. Please call:

(1) Sylvia Holland, 978-6470; (2) Wendy Chin, 978-5468; (3) Manfred Wevers, 978-4834; (4) Ann Sarsfield, 978-2112; (5) David Christman, 978-7308.

Clerk Typist II (\$6,480—7,620—8,760)
English (1), Faculty of Music (2), Media Centre (5)

Clerk Typist III (\$7,130—8,390—9,650)
Vice-President & Provost Office (1), Microbiology & Parasitology (4)

Secretary I (\$7,130—8,390—9,650)
Urban & Regional Planning (5), Applied Science & Engineering (5), Physics (1), Chemistry (1), Dentistry (1), Scarborough College (2)

Secretary II (\$7,850—9,230—10,610)
Speech Pathology (4), Chemical Engineering (5), Division of Instructional Media Services (5)

Anatomy Technician I (\$7,850—9,230—10,610)
Anatomy (1)

Laboratory Technician II (\$9,610—11,300—13,000)
Physics (1), Dentistry (1), Pharmacology (1)

Programmer I (\$9,120—10,730—12,340)
Medical Computing (3)

Programmer II (\$11,373—13,696)
Library Automation Systems (3)

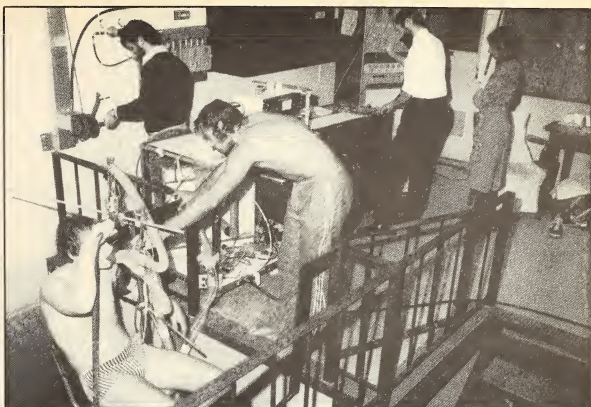
Research Assistant (\$10,600—12,470—14,340)
Sociology Department — Erindale College (2)

Dental Technician III (\$9,610—11,300—13,000)
Dentistry (1)

Administrative Assistant I (\$11,210—13,190—15,170)
Central Services (6)

Computer Operator II (\$9,610—11,300—13,000)
U of T Press (2)

Library IV (\$16,850)
Criminology (1)



Physiologist Dr. Bob Goode (in bathing suit) participates as a test subject in his research experiment studying the effects of sudden immersion into cold water.

Come on in, the water's cold!

How can you survive if your sailboat capsizes and suddenly plunges you into a chilly lake or, while hunting, you break through thin ice into a frigid pond?

The answers to these and other questions involving the lives of campers, sailors and hunters, and other people who may find themselves in this predicament, will be discussed by experts at a one-day Cold Water Symposium, to be held in the Medical Sciences Building on Saturday, May 8, commencing at 9 a.m.

The symposium, sponsored by

the Royal Life Society Canada, in conjunction with the Department of Physiology and the Sports Medicine Section of the Ontario Medical Association, is designed for doctors, first aid officials, and interested members of the public.

Conference co-ordinator is Dr. Robert C. Goode, Professor of Physiology in the Faculty of Medicine and of Physical Education in the Faculty of Education. Dr. Goode has recently conducted research, supported by the Defence Research Board, which indicates that the first 90 to

120 seconds after sudden immersion in cold water are crucial to survival and therefore techniques must be developed to alleviate dramatic changes in respiration and muscle reaction.

The conference will include two special sessions for doctors and extensive information for those engaged in first aid programs. Registration will be from 8.30 a.m. in the Alumni Lounge (third floor), and the fee which includes lunch, is \$20.

RESEARCH NEWS

NATO Advanced Study Institutes Program

The NATO Science Committee has announced its 1976 program of Advanced Study Institutes. A variety of institutes is scheduled in the areas of the life sciences, physics, mathematical and physical sciences, behavioural and social sciences and applied sciences.

Those interested in the program may obtain a complete list of the offerings from ORA. Application

to attend must be made to the director of the Institute.

Application Deadlines

May 1 is the deadline date for receipt of applications for research support for Ontario Ministry of Health — fellowships, renewals and National Research Council — senior industrial fellowships.

Applicants are reminded that applications should be forwarded to ORA at least ten working days prior to the agency deadline date.

PH D ORALS

Since it is sometimes necessary to change a date or time of an oral examination, please confirm the information given in these listings with the Ph.D. oral office, telephone 978-5258.

Monday, May 3

Joe Fries, Department of Educational Theory, "Professionalization and Militancy Among Ontario Secondary School Teachers," Thesis supervisor: Prof. S.B. Lawton, Room 200, Massey College, 2 p.m.

Friday, May 7

Frank Saverio Prato, Department of Medical Biophysics, "The Development of Pulmonary Radiation Fibrosis in Man," Thesis supervisor: Prof. N. Aspin, Room 201, 65 St. George St., 10 a.m.

Monday, May 10

Tomoko Makabe, Department of Sociology, "Ethnic Group Identity: Canadian-Born Japanese in

Metropolitan Toronto," Thesis supervisor: Prof. W.W. Isajiw, Room 201, 65 St. George St., 10 a.m.

Linda Maria Gerber, Department of Sociology, "Minority Survival: Community Characteristics and Outmigration from Indian Communities Across Canada," Thesis supervisor: Prof. R. Breton, Room 201, 65 St. George St., 2 p.m.

Thursday, May 13

Peter Erb, Department of Medieval Studies, "The Use of Ruybroeck, Taler and Other Major Medieval Spiritual Writers by Gottfried Arnold and His Radical Contemporaries," Thesis supervisor: Prof. E.E. Collidge, Room 201, 65 St. George St., 2 p.m.

by Jana Prokop, Reference Librarian

Recently, at the Lockheed Missiles and Space Company Library, a comparison of manual literature searching and computer searching revealed that the traditional method took an average of 22 hours at a cost of \$250, whereas computer searching, which required just 45 minutes, cost a mere \$47.

These interesting statistics are an appropriate introduction to a discussion of the Consultation and Computer Searching Services provided by the reference librarians at the Science and Medicine and John P. Roberts Libraries — services which you are invited to utilize.

Three components of the service are: a librarian, trained in computer searching, at a computer terminal; and telephone lines which connect the terminal to large computer centres in North America, of which the largest are Q1 in Kingston, Ontario; National Library of Medicine in Washington, D.C.; System Development Corporation's ORBIT in Santa Monica, California; and Lockheed's DIALOG in Palo Alto, California.

Let's say you want to find out how much and what has been written on pollution in Lake Ontario. To do it manually could take you several hours you cannot spare. The computer can do it for you in about 20 minutes (the average searching time).

If you are interested come to either the Roberts or the Science and Medicine Reference desks and talk to a reference librarian. Together, you will compile a list of keywords which might appear in titles or abstracts of the articles on your subject. This is all you have to

do, but for the information specialist it's just the beginning. She has to call on her knowledge of the subject and her expertise in computer literature searching.

Out of over 60 data bases the librarian has to choose the most suitable one, and since computers with artificial intelligence are still far off, she has to prepare a "search logic" and a "search strategy". This means putting the keywords into relationships with each other according to Boolean logic before starting any meaningful conversation with the remote computers. This interaction with the computer consists of typing in keywords in a logical fashion, usage of commands, tactics, strategies and gimmicks, and understanding the peculiarities of all the systems. The computer replies by typing its findings (on the library's terminals) at the speed of 30 characters per

second, i.e. about normal reading speed) and produces a list of citations and abstracts on the input topic.

The user pays only for the computer time. The prices vary from data base to data base, ranging from 25 cents to \$2.666 per minutes of machine time and are set by the companies which develop and maintain the networks. Consultation and the information specialist's time and expertise are offered free of charge as a reference service.

Do you wish to know more? Would you like the computer to do your literature searching? Phone the Science and Medicine Library Reference Desk for searches in the Sciences (978-8617) or the Roberts Library Reference Desk for queries in the Social Sciences (978-2279).

Next article will contain information on specific data bases.

Carillon soon to sound, resound

Muted for months while the work of restoration and enlargement was under way, the celebrated carillon in Soldier's Tower will ring out again over the St. George campus at a re-dedication ceremony on Friday, May 7, at 4 p.m.

To mark the occasion, three world famous carillonneurs will perform on the 51 bells, which put U of T's carillon among the seven "large" instruments of their kind in Canada.

At the ceremony the Rev. William M. McKeachie, Chaplain of Hart House, will re-dedicate the carillon to the memory of alumni who gave their lives to their country, and Mrs. Harold S. Beddoe will present the gift to C. Malim Harding, Chairman of the Governing Council.

The first guest recital will be by Percival Price, internationally famous authority on campanology, professor emeritus of campanology at the University of Michigan, and former carillonneur of the Peace Tower in Ottawa and of Metropolitan United Church, Toronto. The second recitalist will be Milford Myhre of Mountain Lake Sanctuary, Florida, and carillonneur of the Bok Singing Tower at Lake Wales, Florida. The finale will be performed by Emilien Allard, Dominion Carillonneur, Ottawa.

A trust fund has been established for donations towards a recital fund.

EVENTS

FRIDAY 30

The Crucible by Arthur Miller. Presented by University of Toronto Schools, 371 Bloor St. W. Performances April 30 and May 1st 8 p.m. Tickets \$2.50

MAY

SATURDAY 1

The Trip of a Lifetime—Faculty of Medicine Open House. Exhibits will cover human growth and development from conception to old age. Students and faculty will be on hand to answer questions. Displays on embryology, childhood learning, physical fitness, environmental health hazards and care of the elderly. Medical Sciences Building. 9 a.m. to 9 p.m.

MONDAY 3

Gauge Fields, Magnetic Monopoles and Fibre Bundles (First in 1976 H.L. Welsh Lectures in Physics) Dr. C.N. Yang, Professor of Physics, State University of New York at Stony Brook. Auditorium, Medical Sciences Building. 2:10 p.m.

Mystical Islam of the 18th Century (Lecture) Prof. Annemarie Schimmel, Harvard University. Upper Library, Massey College. 11 a.m. Prof. Schimmel will also discuss her recent publication *The Mystical Dimensions of Islam* in the Islamic Studies Department lounge. 1408 Roberts Library at 3 p.m. (South Asian Studies Committee ISP)

TUESDAY 4

Laser Induced Fusion (Second in 1976 H.L. Welsh Lectures in Physics) Dr. R. Hofstadter, Max H. Stein Professor of Physics, Stanford University. Auditorium, Medical Sciences Building. 1:45 p.m.

75 Years of Equilibrium Statistical Mechanics (Third in 1976 H.L. Welsh Lectures in Physics) Prof. C.N. Yang, State University of New York at Stony Brook. Auditorium, Medical Sciences Building. 3:45 p.m.

The Slate Islands Meteor Crater (Seminar) Prof. Henry Halls, Erindale College. David Dunlap Observatory. 4 p.m.

WEDNESDAY 5

The Validity of Quantum Electrodynamics (Fourth in 1976 H.L. Welsh Lectures in Physics) Prof. R. Hofstadter, Stanford University. Auditorium, Medical Sciences Building. 1:45 p.m.

The Seronegative Spondyloarthropathies (Wallace Graham Memorial Lecture) Dr. Rodney Bluestone

stone, chief, Rheumatology Section, Los Angeles Veterans' Administration Hospital and Professor of Medicine, University of California at Los Angeles. Lecture theatre, Mt. Sinai Hospital. 5 p.m. (See story this page.)

Speculation and Insight (Last in 1976 H.L. Welsh Lectures in Physics) Prof. C.N. Yang, State University of New York at Stony Brook. Auditorium, Medical Sciences Building. 3:45 p.m.

Information and Immunity Mechanisms of Cell Individuality (Seminar) Dr. Kenneth L. Melmon, Professor of Medicine and Pharmacology and chief, Division of Clinical Pharmacology, University of California Medical Center, San Francisco, 4279 Medical Sciences Building. 3 p.m.

Spring Tea and Fashion Show, University Settlement Women's Auxiliary, 93 Highland Ave. 1:30—4:30 p.m. Proceeds to Settlement camping program.

THURSDAY 6

Reinforced Masonry for a Seismic Area (Lecture) Prof. J.C. Scrivener, Department of Civil Engineering, University of Calgary. 119 Galbraith Building. 10 a.m.

FRIDAY 7

Gallie Day 1976. Auditorium, Mount Sinai Hospital, 600 University Ave. 8 a.m. — 5 p.m. (See story this page)

Industrial Research: What It Is and How to Manage It (Annual Gordon N. Patterson Lecture) Dr. Domenic Bitondo, director and general manager, Bendix Research Laboratories. Main lecture hall, Institute for Aerospace Studies. 2 p.m. (See story this page)

TUESDAY 11

Stereo-electronic Effects and Properties of Tetrahedral Species (First in series of three, A.R. Gordon Distinguished Lecture Series) Prof. Jean-Marie Lehn, Institut de Chimie, University of Strasbourg, 162 Lash Miller Chemical Laboratories. 4:10 p.m.

Cassiopeia A, The Invisible Supernova (Seminar) Dr. K.W. Kamper, Department of Astronomy, David Dunlap Observatory. 4 p.m.

WEDNESDAY 12

Cryptates in Chemistry: the chemistry of macropolymeric inclusion complexes (Second in series of three, A.R. Gordon Distinguished Lecture

Series) Prof. Jean-Marie Lehn, Institut de Chimie, University of Strasbourg, 162 Lash Miller Chemical Laboratories. 4:10 p.m.

THURSDAY 13

Transport Processes in Organic Chemistry (Last in series of three, A.R. Gordon Distinguished Lecture Series) Prof. Jean-Marie Lehn, Institut de Chimie, University of Strasbourg, 162 Lash Miller Chemical Laboratories. 4:10 p.m.

The Immunological Destruction of Red Cells (Lecture) Dr. Wendell F. Rosse, Professor of Medicine, Duke University Medical Center. The lecture will be illustrated with a time-lapse, phase-contrast film made in the laboratory of Dr. M. Bessis, Paris. Main auditorium, Toronto General Hospital. 7:30 p.m.

Pots of Gold in China (Sixth in series of eight lectures introducing Gold for the Gods exhibition) Patricia Proctor, curatorial assistant, Far Eastern Department, ROM. Lecture room, McLaughlin Planetarium. 8 p.m.

Health care . . . How to avoid it! (First series of three lectures on Controversies in Health Care.) Staff physicians at Sunnybrook Hospital will discuss topics including accidents, alcohol and the liver, lung cancer, coronary artery disease and neuroses. Sunnybrook Medical Centre. 8 p.m.

FRIDAY 14

Immunologic Responses to Streptococci: In vivo Effects of Secretory Antibodies and their Possible Role in Caries Vaccination (Lecture) Dr. R.J. Genco, Department of Oral Biology, School of Dentistry, State University of New York at Buffalo. 308 Faculty of Dentistry. 11 a.m. (Dentistry and SGS)

SATURDAY 15

Labour Relations Seminar for all U of T library staff. Speakers: Prof. Ray, Faculty of Law; Donald Houck, Currie Coopers and Lybrand Ltd. and P. Robb, formerly Toronto Public Library. 4049 Roberts Library. 9:15 a.m. — 4:30 p.m. Registration limited to first 30 applicants. Fee \$5 LAUT members, \$6 non-LAUT members. Registration contact Rata Caune, 884-2112, deadline May 7.

SUNDAY 16

NanciCarole Monahan, double bass and Patricia Krueger, piano (Donald McMurrich Memorial Concert) Walter Hall, Edward Johnson Building. 8:30 p.m.

responsible for the formation of the Canadian Arthritis and Rheumatism Society.

Dr. Bluestone has written extensively on the physiology of cells in joint lining and on newer forms of therapy in rheumatoid arthritis and gout. His investigations in the field of genetic markers have opened up new avenues of

research in the epidemiology and pathogenesis of rheumatic diseases.

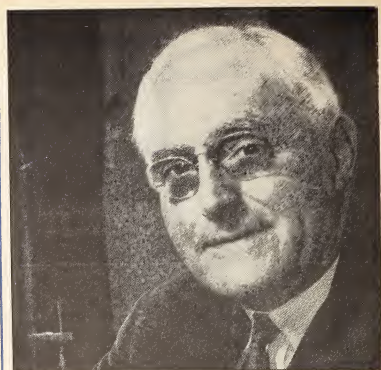
Dr. Bluestone will discuss "Pathogenesis of the Gouty Kidney" at Rheumatology Rounds and "Altered Immunity in Rheumatoid Arthritis" at Medical Rounds. All interested members of the Faculty of Medicine are invited to attend.

Robarts Library cost \$41,381,493

Official completed cost of the Robarts Library is \$41,381,493, according to a report tabled at the April 21 meeting of the Business Affairs Committee.

The library was approved in 1968 at a total project cost of more than

\$42.6 million, including a \$1,000,000 private benefaction which did not materialize. Savings, primarily achieved from the original inflated cost estimates for custom-made furniture, have produced the lower figure.



Prof. W. E. Gallie developed world-renowned survey course

Annual Gallie Day on May 7

On May 7, surgeons who have been trained in the University of Toronto's world-renowned Gallie Course in surgery will gather for a one-day scientific meeting. The papers of the third annual Gallie Day will be presented in Mount Sinai Hospital auditorium.

Dr. Donald R. Wilson, the current professor and chairman of the Department of Surgery, inaugurated the tradition of Gallie Day, which pays tribute to the late Prof. W.E. Gallie who occupied the Chair of Surgery from 1929-1947.

Before Dr. Gallie developed the first fully defined training program in North America, the neophyte surgeon tended to study by the preceptorship method, moving from centre to centre, from teacher to teacher. "The new system was readily accepted in North America and has become a prototype in many other parts of the world," says Prof. Wilson, Surgeon-in-Chief at the Toronto Western Hospital.

In the first year of the 45-year-old program, only three surgeons began their training in Toronto. Now there are 150 training in the Gallie program at any given time.

Gallie Day has come to be an academic exchange between those who taught and those who learned — many of whom today hold teaching positions in various parts of the world. The day is intended to strengthen ties with the University, renew academic and personal bonds, as well as to honour Dr. Gallie's pioneer work in creating a formal academic training for young surgeons.

Gallie Day has come to be the academic highlight of the Department of Surgery. This year for the first time the Gallie-Bateman Award will be given to the resident who has prepared the best research paper during training. As well, there will be a paper on post graduate surgical education in Canada, by Prof. F.P. Dewar of the University's Division of Orthopedic Surgery; and another, on post graduate surgical education in Britain, by Prof. J.L.P. James of the Department of Orthopedic Surgery in the University of Edinburgh.

Librarians and labour relations

The Librarians' Association of the University is holding a one-day workshop on Labour Relations on May 15. There will be sessions on the Ontario Labour Code, the negotiation process, and techniques of administering agreements. (See "Events," page 8)

As a follow-up to the workshop, there will be preview screenings of

the Media Centre videotape production, *Grievance Arbitration Process*, on May 17, 18 and 19 from 12 noon to 2 p.m. in the Faculty of Library Science lecture theatre. The four-part program contains sections on Confrontation (17 minutes); Preparation (20 minutes); Hearing (50 minutes); and Argument (24 minutes).

Alumni Advisory Conference

The President, Officers and Directors of the U.T.A.A. cordially invite members of the University community to the *Alumni Advisory Conference*. The Conference is an annual event designed to bring together representatives of the various estates of the University. Its purpose is to explore issues vital to the life of the University.

The topic this year is: "Academic Excellence: Its Price and Value". The first session will be held on Friday, May 7 at the Town Hall Theatre, Innis College at 8 p.m., with H. Ian Macdonald, President of York University as the keynote speaker. The presentation of the Moss Scholarship will precede Mr. Macdonald's talk, which will be followed by a special U.T.A.A. presentation to Innis College.

The second session will be held on Saturday, May 8 at the New Academic Building, Victoria College at 9:15 a.m. Exploration of the theme will be continued at this time by a panel consisting of: Dr. E.F. Sheffield, Professor of Higher Education and Chairman of the Higher Education Group; Mr. B.A. Wilson, Assistant Deputy Minister, Ontario Ministry of Colleges and Universities; and Mrs. P. Fleury, Vice-Chairman, Academic Affairs Committee, Governing Council.

The conference will be followed by the U.T.A.A. Annual Meeting at noon, which in turn will be followed by a reception and luncheon at Burwash Hall.

Those wishing to attend any of these sessions are asked to contact Alumni House. 978-8990.

Dr R Bluestone to visit Mount Sinai

Dr. Rodney Bluestone, Professor of Medicine at the University of California at Los Angeles, will visit Mount Sinai Hospital, May 4 and 5, at the invitation of the University's Rheumatic Disease Unit. Dr. Bluestone will deliver the annual Wallace Graham Memorial Lecture entitled "The Seronegative Spondyloarthropathies" on May 5 at 5 p.m. He will also take part in Rheumatology Rounds on May 4 at 9 a.m. and in Medical Rounds on May 5 at 9 a.m. All events will take place in the hospital auditorium. Dr. Wallace Graham formed the arthritis service at Sunnybrook Hospital and his efforts led to the formation there of the first rheumatic disease unit in Canada. Dr. Graham was also one of those